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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,024	03/29/2000	Subhankar Chatterjee	C-481B	6245

7590

10/06/2003

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EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 10/06/2003

28

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>		<b>Applicant(s)</b>	
	09/538,024		CHATTERJEE ET AL.	
	<b>Examin r</b>		<b>Art Unit</b>	
	Monique R Jackson		1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10,13-35 and 38-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10,13-26,48 and 49 is/are allowed.
- 6) ☒ Claim(s) 27-35 and 38-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. The amendment filed 7/11/03 has been entered. Claims 50 and 53-55 have been canceled. Claims 1-10, 13-35 and 38-49 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The indicated allowability of claims 27-35 and 38-47 is withdrawn in view of the newly discovered reference(s) to Salvin et al. Rejections based on the newly cited reference(s) follow.

#### ***Claim Rejections - 35 USC § 112***

4. Claims 27-35 and 38-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 27 recites the limitation "An improved actinic radiation curable homogeneous aqueous composition...wherein the improvement comprises when a surface is coated with the composition and exposed to actinic radiation in the presence of the water, a cured film is formed wherein less than 50 ppb of uncured residue is extractable therefrom when immersed and heated in 10 ml of a simulant liquid per square inch of cured film." However, given that the limitations following the term "wherein the improvement comprises" are directed to the intended use of the aqueous composition and the cured film formed from the composition, it is unclear whether the instant claims are meant to comprise the coated substrate, the cured film or the composition.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 27 is rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art given the Jepson claim format wherein the limitations following the phrase “wherein the improvement comprises” do no materially affect the aqueous composition given that these limitations are directed to the future use of the composition and the cured film formed therefrom.

7. Claims 27-35 and 38-47 are rejected under 35 U.S.C. 102(b) as being unpatentable over Salvin et al (USPN 5,501,942.) Salvin et al teach a UV radiation curable homogeneous aqueous composition comprising 10-50wt% water-soluble film-forming binder, 4-50wt% water-soluble photopolymerizable acrylate and/or methacrylate monomers and/or corresponding oligomers, 0.1 to 10wt% water-soluble photoinitiator compounds, optionally 2.5-40wt% water-soluble crosslinking agents, and water as a basic sole solvent constituting the balance of the inventive composition to make up 100wt% wherein the water content is governed by the desired viscosity of the composition with preferred compositions containing at least about 30wt% (Abstract; Col. 2, lines 1-67; Col. 3, lines 1-13 and 29-34; Col. 7, lines 35-67; Col. 9, lines 4-15.) Salvin et al teach that suitable (meth)acrylate monomers and oligomers include diethylene glycol diacrylate, trimethylolpropane triacrylate, pentaerythritol triacrylate, epoxy acrylates, urethane acrylates or polyester acrylates (Col. 6, lines 1-10.) The Examiner notes that the limitations recited in Claims 41-47 are directed to the intended use of the composition and do not further limit the claimed composition materially. Further, it is noted the limitations recited in Claims 33-34 are not

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positively claimed as a requirement of the invention given that Claim 32 from which Claim 33 and 34 recite these compounds in the alternative.

***Allowable Subject Matter***

8. Claims 1-10, 13-26 and 48-49 allowed. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art Salvin et al teach a UV radiation curable homogeneous aqueous composition comprising 10-50wt% water-soluble film-forming binder, 4-50wt% water-soluble photopolymerizable acrylate and/or methacrylate monomers and/or corresponding oligomers, 0.1 to 10wt% water-soluble photoinitiator compounds, optionally 2.5-40wt% water-soluble crosslinking agents, and water as a basic sole solvent constituting the balance of the inventive composition to make up 100wt%. However Salvin et al do not teach or render obvious that the cured coating would have an uncured residue or oligomer extractable when immersed and heated in 10ml of simulant liquid per square inch of cured film of less than 50ppb or a method of producing this cured coating by irradiating the surface in the presence of water. Further,

9. Buethe et al, teach a radiation curable aqueous composition comprising water and a radiation curable compound containing at least one alpha, beta ethylenically unsaturated radiation polymerizable group or acrylic group which may be irradiated with actinic radiation to form a cured coated substrate which could be utilized for coating foodstuff containers. However, Buethe et al teach that the composition is a dispersion and do not teach or suggest that the composition is a homogeneous composition or solution as instantly claimed. Buethe et al also do not teach or render obvious that the cured coating would have an uncured residue or oligomer

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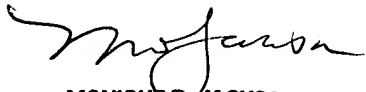
extractable when immersed and heated in 10ml of simulant liquid per square inch of cured film of less than 50ppb.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



**MONIQUE R. JACKSON**  
**PRIMARY EXAMINER**

Technology Center 1700  
September 24, 2003